

Aerobic Treatment Units

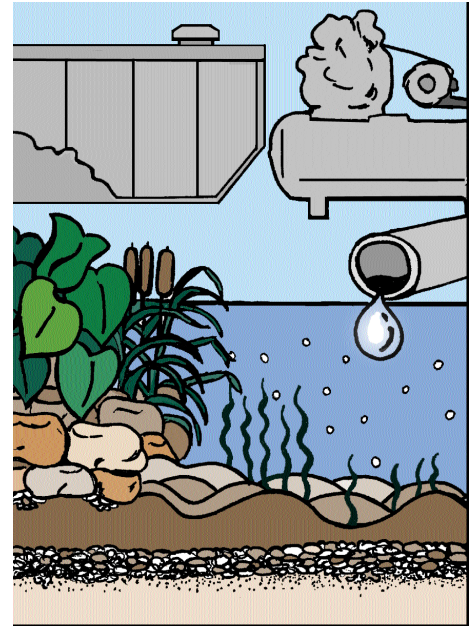
Installation and Maintenance

What is an aerobic treatment unit?

Aerobic treatment units — also called treatment plants — generate high quality effluent containing carbon dioxide and a variety of oxidized end products.

Unlike septic tanks, the wastewater is treated in the presence of oxygen. This is accomplished through use of an electric air pump or motor, which mixes air with the wastewater in the tank.

Because the effluent is of such high quality, aerobic treatment units are usually installed as a discharge system.



What are Aerobic Treatment Units specific discharge systems?

In discharge systems, the wastewater is treated then released on top of the soil. This wastewater must be chlorinated before releasing. The treated wastewater may be released at a single or multiple discharge points or sprayed over the soil.

Many home owners dislike the excessive wet area often created in their yard by single or multiple discharge points. As an option, they may choose a spray discharge system, which spreads the wastewater over a larger area and reduces the likelihood of an extremely wet area.

Home owners should understand that aerobic treatment units do not cause a reduction of wastewater volume.

The volume of wastewater generated will be the same as the volume released on the homeowner's property.

Will a discharge system work on my property?

One of the most important things to remember about any discharge system is that they must maintain all of the wastewater on the property of the generator.

If a single or multiple-point discharge is used, there must be a minimum distance of 50 feet between the property line and the point where the wastewater will stop flowing. Please note that this is not the discharge point; the 50-foot buffer must be located so that no wastewater effluent — even though it has been treated — will leave the generator's property. The discharge point must be located to ensure this 50-foot buffer even in the wetter periods of the year.

Spray discharge systems require a 25-foot buffer between any property lines and the edge of the spray pattern. Again , please note that this is not the actual sprayer or discharge point.

Additionally, the effluent must be kept 100 feet from any well or source of potable water, sensitive waters, or sensitive areas.

These requirements for buffer zones and setbacks mean that small parcels of property are generally not suited for aerobic treatment units.

These systems will usually require at least two acres to keep all discharge on the generator's property. More or less property may be required, depending on the location of the house, wells and soil/site characteristics.

If space is available, these systems may be used in areas with high seasonal water tables and/or soil textures with a high clay content.

How do you maintain an aerobic treatment system?

Because aerobic treatment units use an electric motor to treat the wastewater, it's essential that the motor be maintained.

If the motor is not operating as designed, the quality of discharge is very poor and should not be discharged on the soil surface. Poor effluent quality could result in few pathogens being removed and creation of a potential health hazard.

Spray discharge systems use an electric pump to force the wastewater to the spray field. This pump should be routinely maintained. If it fails, the wastewater system will eventually fail and may overflow into the home. Finally, the treatment plant should be pumped periodically to remove the solids in the bottom of the tanks. The pump-out schedule will be determined by how much organic material is loaded into the system. A widely accepted general rule is to have the tank pumped out every three to five years.

Where can I get more information about aerobic treatment units?

For more information about Aerobic Treatment Units and their possible use in your home wastewater disposal system, contact your county public health environmentalist.



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